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I, LEANNE MYNOTT, MANAGER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003903639 for a patent by BEAUMONT GREGORY LYONS as filed on 16 July 2003.



WITNESS my hand this
Sixth day of May 2004

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15th July 2003

Hammock Fabric:

Summary:

This invention is in regard to a hammock, made out of synthetic material which won't rot when left outdoors. It is machine made, and designed with ventilation holes which have controlled stretch parameters built into the design for superior comfort. It also has an interlocking weave pattern which can also modify the stretch characteristics of the fabrics.

History:

Hammocks have been around for thousands of years, first made of plant fibers of leaves including hemp and then cotton. 95% of hammocks currently sold around the world are made from these materials. Hammocks were designed in South America as a portable bed for interior use. However the western world uses hammocks as outdoor furniture. However if left outdoors these materials (cotton) absorb moisture and rot.

Synthetic materials have been tried; such as nylon, polyester etc as these materials do not absorb moisture and will not rot. There are nylon and polyester hammocks currently on the market. However although they will last outdoors they are not comfortable because they do not absorb the sweat of cotton and feel calmly.

Another factor with hammocks is the ability to stretch according to body pressure. Individual cotton fibers stretch, not only in the material of the hammock bed, but also the supporting cords. The combined stretch factor of the bed and the cords give the hammock its superior comfort level. Synthetic materials do not stretch and hammocks made from synthetics are not very comfortable.

My invention;

A hammock made out of synthetic material (nylon, polyester or other polyolefin material) The bed is a woven fabric with an interlocking weave pattern which allows for a stretch factor to be built into the fabric without the use of rubber components which deteriorate if exposed to sunlight.

The weave pattern, and stretch characteristics may vary dependant on the hammock application. Generally speaking it is important for a hammock to have no more than 10% stretch lengthways and have 50% stretch in the width. The interlocking weave pattern can be varied to suit different hammock applications. The material could also have a minimum proportion of 70% solid material and 30% ventilation holes.

The preference is for 80% : 20% The holes could vary in size.

I found that I could also use the shape of the ventilation holes as the stretch factor in the fabric. The hole size and shape is designed so the bed material has limited stretch in either direction. As the hole in the fabric opens and closes dependant on body pressure applied at that spot. With this concept in mind fabric can be designed to stretch in different directions according to the intent of the designer.

By making the hole oval, rectangular or an elongated diamond shape, the stretch factor could be controlled in either direction. The longer side of the hole being parallel with the length of the hammock and the shorter width of the hole being parallel with the width of the hammock will give the hammock a stretch factor equivalent to the preferred comfort level.

A hammock made in this form is very strong, because of the synthetic material. It is suitable to be left outdoors and will not absorb moisture. The comfort level, i.e. the amount of stretch can be designed into the fabric by the size, elongation and spacing of the holes.

Another factor is the L/W ratio of synthetic fibers used to make the fabric. Ventilation is achieved by the myriad of small holes.

A hammock made with this concept has a pleasing solid look, and can be coloured and printed in various patterns and designs.

What I have done is to take the inherent stretch and moisture absorbing factor in cotton and replace it with a fabric made from synthetic material with woven stretch characteristics and a series of small holes which not only ventilate but also allow further stretch in the material. This product can be made on existing weaving equipment.